Transform Facilities

The Next Generation Air Transportation System (NextGen) transforms the national air transportation system by establishing enhanced and expanded services through new technologies, policies, procedures, and methods of operation to meet future demand and avoid gridlock in the sky and at the airports.

This NextGen activity focuses on delivering a facility infrastructure that support the transformation of air navigation service delivery unencumbered by legacy constraints. NextGen facilities will provide for expanded services; service continuity; optimal deployment and training of the workforce; all supported by cost-effective and flexible systems for information sharing and back-up. Traffic is assigned to facilities on both a long-term and daily basis with service continuity a foremost requirement. Business continuity is built into the system and provides for a more resilient infrastructure, better contingency operations, and a higher degree of service.

Within the NextGen facility solution set there are three planned activities. The first is the establishment of an integration, development and operations analysis capability. NextGen introduces evolutionary and revolutionary concepts of operations and new technologies into the air traffic system. The integration, development and operations analysis capability provides for the conduct of early evaluations, concept development, alternatives analyses, and/or demonstrations in a flexible, real-time NextGen integrated environment introduced by NextGen.

The second activity, future facilities planning, includes a full range of studies that will address NextGen facility alternatives to meet the need to transform operation in an environment that provides flexibility by reducing the need to be geo-dependent and proximate to the air traffic being managed. These studies are being conducted in support of an anticipated 2009 initial investment decision.

Lastly, the NextGen tower activity will identify the necessary requirements and specifications for future towers as well as determine a common tower display and look at the possibility of certification of ASDE-X and/or alternatives to support ground separation. Work accomplished will support a planned 2011 initial investment decision.

Near-Term Demonstrations:

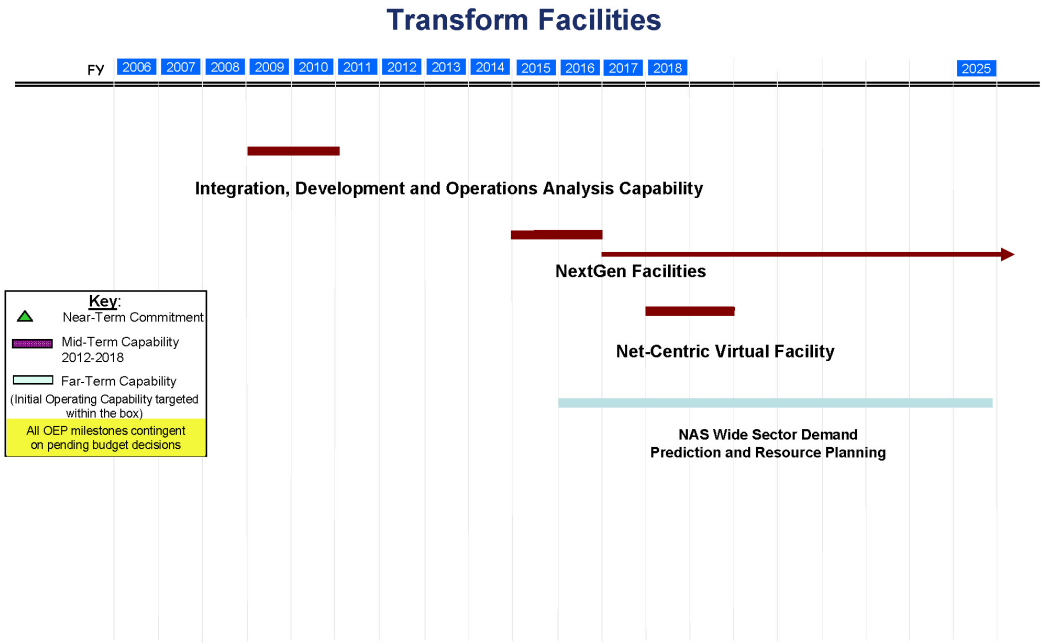
NextGen Tower (Staffed and Autonomous) – The NextGen Tower program will demonstrate and validate the potential of emerging alternative approaches for performing local and ground air traffic control tower operations at locations other than the current Airport Traffic Control Towers (ATCT). Projected growth in air traffic and the high cost of building, sustaining, and replacing ATCTs necessitate the development and evaluation of new concepts that do not require the construction of a new tower or its co-location within or immediately adjacent to the airport property. Such a concept is envisioned and outlined in the JPDO's NextGen ConOps. The ConOps outlines a future air traffic system in which ANSP services are provided from remote locations, not requiring the ANSP to be

physically present in a tower or near the airport property. The NextGen tower demonstrations will be at field sites (medium to high density airports) that are yet to be determined. The field site selection for NextGen towers (both staffed and autonomous) is expected to occur in FY 2008.

Mid-Term Capabilities:

- Integration, Development and Operations Analysis Capability
- NextGen Facilities
- Net-Centric Virtual Facility

Timeline:



NextGen Implementation Plan (June 2008)

FY09 Key Enabling Activities:

NextGen Transformational Program

National Airspace System Voice Switch (NVS): The NAS Voice Switch will be a real-time, critical part of the ATC infrastructure that provides the connectivity for efficient communications among air traffic controllers, pilots, and ground

personnel. ATC communications service affects safety, traffic flow capacity, and efficiency. The NVS will replace the service that is currently provided by 17 different voice switch system configurations. The focus will be on designing a replacement switch with standardized components that will reduce maintenance and parts inventory costs.

In 2009, work will continue to achieve initial investment decision and final investment decision. This includes development of all technical, operational and business case acquisition planning documents required for source selection.

Additional details for the NVS program can be found in the reference sheet.